

# **EXHIBIT A**



**Neurorehabilitation Unit**  
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Provo, Utah 84605  
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## **NEUROPSYCHOLOGICAL CONSULTATION REPORT**

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It may contain information that could be harmful to the patient or related parties. The report, raw data, or the information contained herein are protected by HIPAA, copyright and trade secret laws and should not be released to the patient except by a mental health or medical professional qualified in the interpretation of the neuropsychological/psychological materials and the understanding of such laws. Release of this information cannot be made without the express written consent of the patient/guardian. **Request for a general release of medical records is not sufficient.** Test data included in this report should be considered outdated after six months.

**Name:** Shannon Kay Cavanaugh  
**Date of birth:** July 23, 1982  
**Date of testing:** November 11, 2008  
**Age at testing:** 26 yrs 4/12 mo  
**Address:** 1401 South, 1450 West / Woods Cross, UT 84087  
**Years of education:** 12  
**Date of injury:** December 8, 2006  
**Time since injury:** 1 yrs 11/12 mo  
**Medication:** "Topamax, Imitrax"

### **PRESENTING PROBLEM:**

The patient is seen today for neuropsychological evaluation to assess current level of functioning subsequent to injuries sustained in a fall that occurred on December 9, 2006 wherein she sustained a moderate traumatic brain injury (TBI). Medical reports indicate an incident in which she was tasered and subsequently fell and struck her head on the ground. The patient was transported to the University of Utah Medical Center where she was intubated for airway maintenance and treated for an intracerebral and epidural hemotoma. Current reported symptoms include: persistent daily headaches, reduced concentration and motivation, memory difficulty, irregular bowels and "some depression that goes in phases".

### **BACKGROUND HISTORY:**

Extensive records are available on this patient including: Initial CT head scans from University of Utah Emergency Department on the day of injury demonstrating: a right temporal epidural hematoma, approximately 1 cm; right sylvian fissure subarachnoid hemorrhage; left intraparenchymal hemorrhage; left temporal contusion; diffuse cerebral edema, with sulcal effacement; and a small focus of pneumocephalus, with a right-sided skull based fracture.

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Because of persistent symptoms, including headache, a repeat scan on December 14, 2006, indicated an increase in size of the right temporal epidural hematoma as well as midline shift and the decision was made to neurosurgically evacuate via a right craniotomy. Post-surgical MRI performed on December 15, 2006, demonstrated decrease mass effect post-epidural removal with stable left frontal and temporal lobe hemorrhages. Post-injury psychiatric records report the following diagnoses: depression NOS; alcohol dependence and eating disorder NOS. Medical history is also significant for an arm fracture (age 7), but with no reported head injury and childhood speech articulation difficulty, which resolved with maturation. The patient indicates no knowledge of being diagnosed or treated for learning disability as a child and she graduated from public high school, with a high C/low B GPA. Maternal and paternal family medical histories are reportedly nonsignificant. Additional history is documented in the Neurobehavioral History Questionnaire which was completed by the patient. With regards to headaches they will occasionally reach a "10". She did not report significant headache at the beginning of the assessment, but does indicate that her head pain on a typical day rates about a "2", which is what she rated it today.

**BEHAVIORAL OBSERVATIONS/MENTAL STATUS EXAMINATION:**

*Appearance, Movement, and Behavior* – This patient was casually groomed and casually dressed. Her motor exam appeared to be within normal limits. She also reported mild head pain after the lunch break and moderate body pain at the end of this assessment.

*Orientation and Autobiographical Memory* – Patient was oriented in all four spheres. Autobiographical memory appeared to be within normal limits. The patient was able to recall "leaving the house before" the accident and "two to three days later" when her breathing tube was removed.

*Speech* – Speech was intelligible 100% of the time. She demonstrated appropriate conversation skills and appropriate speech rate and volume.

*Thought Content and Process* – No apparent disturbances in content or thought processes were noted on mental status examination or during the assessment.

*Affect / Mood* – Depressed mood with restricted affect.

*Insight / Judgment* – There was no evidence of impairment during the assessment.

*Validity* – Patient was cooperative and appeared fully engaged throughout the entire assessment. She did not display any impairment on measures of suboptimal performance, consistently exhibiting what appeared to be full effort throughout testing. This assessment is considered to be a valid reflection of her current neurobehavioral status.

**TESTS ADMINISTERED:**

See attached data sheet.

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**TEST RESULTS:**

See attached data sheet for specific scores.

**INTELLECTUAL FUNCTIONING:****Wechsler Abbreviated Scale of Intelligence**

	<b><u>Standard Score</u></b>	<b><u>Percentile</u></b>
Verbal IQ	89	23
Performance IQ	100	50
Full Scale IQ	94	34

Results of intellectual assessment indicate level of functioning to be generally within the average range, with relatively higher performance seen for Performance IQ. Given the history of significant TBI it may be appropriate to compare current academic and cognitive function to pre-injury public school records.

**ACADEMIC FUNCTIONING:****Wide Range Achievement Test - 4th Edition**

	<b><u>Standard Score</u></b>	<b><u>Percentile</u></b>	<b><u>Grade Equivalent</u></b>
Word Reading	90	25	10.2
Sentence Comprehension	89	23	10.4
Spelling	90	25	9.6
Math Computation	93	32	8.7

Basic academic skill level in this patient is in the low average to average range.

**PERSONALITY/EMOTIONAL FUNCTIONING:**

Psychometric assessment of personality and emotional functioning as measured by the BDI, BAI, SCL-90-R and PAI identify current depression symptoms. On the Post-Traumatic Stress Diagnostic Scale, the patient meets full criteria for Post-Traumatic Stress Disorder.

**NEUROPSYCHOLOGIC FUNCTIONING:**

The patient is right-side dominant. Basic motor, somatosensory and olfactory functions were within normal limits. Language function was also found to be intact as was basic visual-spatial function. However, the initial trial on the California Verbal Learning Test and the Working Memory index on the Wechsler Memory Scale were low, which are often indicators in the TBI patient for impaired attention/concentration. Likewise, executive functioning displayed variability.

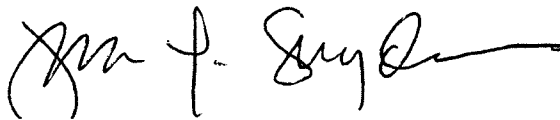
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**IMPRESSION:**

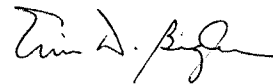
By history this patient sustained a moderate TBI with positive neuroimaging findings indicative of structural brain damage. The current neuropsychological evaluation documents neuropsychiatric and cognitive sequelae consistent with this history of moderate TBI.

A handwritten signature in black ink, appearing to read 'Alex Cramond', enclosed within a circular scribble.

Alex Cramond, M.A.  
Neuropsychology Intern

A handwritten signature in black ink, appearing to read 'James L. Snyder', written in a cursive style.

James L. Snyder, Ph.D.  
Clinical Director Neuropsychology/  
Rehabilitation Psychology

A handwritten signature in black ink, appearing to read 'Erin D. Bigler', written in a cursive style.

Erin D. Bigler, Ph.D., ABPP/CN  
Supervising Clinical Neuropsychologist

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### DATA SHEET

#### Demographic Information

Name:	Shannon Kay Cavanaugh	Yrs of Education:	12
Date of Birth:	July 23, 1982	Date of injury:	December 8, 2006
Gender:	Female	Time since injury:	1 yrs 11/12 mo
Ethnicity:	Caucasian	Previously Assessed:	November 11, 2008
Date of Testing:	November 11, 2008	Time Since Assessed:	0/12 mo
Age at Testing:	26 yrs 4/12 mo	Medication:	Topamax, Imitrax
Address:	1401 South, 1450 West / Woods Cross, UT 84087	Referral Source:	Attorney
Test Administrator:	Alex Cramond, M.A.	Presenting Problem:	TBI

#### Halstead-Reitan Battery

Subtest/Index	Raw
<b>Lateral Dominance Exam</b>	
Dominant Hand	right
Writing name -rt (sec)	7
writing name -lt (sec)	14
Dominant eye	right
Dominant leg	right
<b>Grip Strength</b>	
H-R GS - Dominant	23.0
H-R GS - Nondominant	22.3

<b>R-K Sensory-Perceptual Exam.</b>					
Tactile	Errors				
RH-LH:	R: 0	L: 0	bR: 0	bL: 0	
RH-LF:	R: 0	L: 0	bR: 0	bL: 0	
LH-RF:	R: 0	L: 0	bR: 0	bL: 0	
Auditory	Errors				
RE-LE:	R: 1	L: 0	bR: 0	bL: 0	
Visual	Errors				
Above:	R: 0	L: 0	bR: 0	bL: 0	
At:	R: 0	L: 0	bR: 0	bL: 0	
Below:	R: 0	L: 0	bR: 0	bL: 0	
Visual Fields	full				

Subtest/Index	Raw
<b>Finger Tapping Test</b>	
HR FTT - Dom	49
HR FTT - Nondom	50
<b>Trail Making Test</b>	
Version	adult
HR - Trail A (sec)	21
HR - Trail A (err)	0
HR - Trail B (sec)	64
HR - Trail B (err)	2

<b>R-K Sensory-Perceptual Exam. (cntd)</b>					
Tactile Finger Rec.	- Errors				
R:	F1: 0	F2: 0	F3: 0	F4: 0	F5: 0
L:	F1: 0	F2: 0	F3: 0	F4: 0	F5: 0
Finger Tip # Write	- Errors				
R:	F1: 0	F2: 1	F3: 1	F4: 1	F5: 0
L:	F1: 0	F2: 0	F3: 1	F4: 0	F5: 0

#### R-I Aphasia Screening Test

Errors:

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#### Pocket Smell Test

Measure/Subtest	Raw
Pocket Smell Test (/3)	2

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**Validity Measures**

Measure/Subtest	Raw
<b>Test of Memory Malinger</b>	
Trail 1	50
Trial 2	50
Delayed	-

Measure/Subtest	Raw
<b>Rey - 15 Item Test</b>	
# correct	15

**Wechsler Abbreviated Scale of Intelligence - WASI**

Subtest/Index	Raw	Scaled
WASI-vocabulary	47	40
WASI-similarities	33	46
WASI-block design	50	54
WASI- matrix reasoning	24	47

Subtest/Index	Raw	Scaled
WASI-Verbal Scale	86	89
WASI-Performance Scale	101	100
WASI-Full Scale	187	94

**Wechsler Memory Scale, Third Edition - WMS-III (with optional subtests)**

Subtest/Index	Raw	Scaled
WMS-III - Information Orientation	14	67 (%ile)
WMS-III - Logical Memory 1	38	10
WMS-III - LM1 1st recall	21	9
WMS-III - LM1 learning slope	6	10
WMS-III - LM1 - theme	15	8
WMS-III - Logical Memory 2	23	10
WMS-III - LM2 % retention	85	10
WMS-III - LM2 - theme	9	7
WMS-III - Verbal Paired Associates 1	21	10
WMS-III - VPA1 1st recall	0	6
WMS-III - VPA learning slope	8	17
WMS-III - Verbal Paired Associates 2	8	13
WMS-III - VPA2 % retention	100	12
WMS-III - Auditory Recognition Delayed	49	9
WMS-III-APC - single trial learning	15	14 (%ile)
WMS-III-APC - learning slope	27	92 (%ile)
WMS-III-APC - retention	22	63 (%ile)
WMS-III-APC - retrieval	-3	16 (%ile)

Subtest/Index	Raw	Scaled
WMS-III - Letter Number Sequencing	9	8
WMS-III - Digit Span	17	10
WMS-III - (Longest Digits Forward)	7	.24 (Z)
WMS-III - (Longest Digits Backward)	4	-.64 (Z)
WMS-III - Spatial Span	15	8
WMS-III - Spatial Span - forward	10	11
WMS-III - Spatial Span - backward	5	6
WMS-III - Faces 1	41	11
WMS-III - Faces 2	37	9
WMS-III - Faces 2 - % retention	90	4
WMS-III - Family Pictures 1	45	9
WMS-III - Family Pictures 2	49	10
<b>WMS-III - Auditory Immediate</b>	<b>20</b>	<b>99</b>
<b>WMS-III - Visual Immediate</b>	<b>20</b>	<b>100</b>
<b>WMS-III - Immediate Memory</b>	<b>40</b>	<b>100</b>
<b>WMS-III - Auditory Delayed</b>	<b>23</b>	<b>108</b>
<b>WMS-III - Visual Delayed</b>	<b>19</b>	<b>97</b>
<b>WMS-III - Aud Rec Delayed</b>	<b>9</b>	<b>95</b>
<b>WMS-III - General Memory</b>	<b>51</b>	<b>101</b>
<b>WMS-III - Working Memory</b>	<b>16</b>	<b>88</b>

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**California Verbal Learning Test, Second Edition (CVLT-II), Standard Form**

Subtest/Index	Raw	Scaled	Subtest/Index	Raw	Scaled
CVLT Trial 1	7	-0.5	CVLT learning slope	2	0.0
CVLT Trial 2	10	0.0	CVLT recall consistency	89	1.0
CVLT Trial 3	13	0.5	CVLT b v 1	-14	0.0
CVLT Trial 4	14	0.5	CVLT short delay free v 5	-15	0.0
CVLT Trial 5	13	-0.5	CVLT long delay free v 5	-8	0.5
CVLT Total 1-5	57	53 (T)	CVLT long v short delay free	9	0.5
CVLT Trial b	6	-0.5	CVLT total repetitions	11	1.0
CVLT Short Free	11	-0.5	CVLT total intrusions	9	1.5
CVLT Short Cued	11	-1.0	CVLT recognition hits	4	2.0
CVLT Long Free	12	0.0	CVLT recognition false positives	0	-0.5
CVLT Long Cued	12	-0.5	CVLT recognition discrimination	4	-0.5
CVLT Semantic Clustering	-1	-1.5	CVLT forced choice %accuracy	0	(%ile)
CVLT Serial Clustering fd	2	1.0	CVLT free recall v forced	0	(%ile)
%primacy	26	-0.5	CVLT recognition v forced	0	(%ile)
%middle	44	-0.5			
%recency	30	1.0			

**Boston Naming Test**

Subtest/Index	Raw
Boston Naming Test	52

**Hooper Visual Organization Test**

Subtest/Index	Raw	Scaled
Hooper	25.5	51 (T)

**Rey Complex Figure Test and Recognition Trial - Myers Version**

Subtest/Index	Raw	T/%ile
Rey - Copy	30	1 (%ile)
Rey - Delayed Recall	11	-3. (Z)
Rey - Recognition Total	10	.3 (Z)

**Wide Range Achievement Test, 4th Edition - WRAT-4**

Subtest/Index	Raw	Scaled	Gd Eq	Subtest/Index	Raw	Scaled	Gd Eq
Word Reading	55	90	10.2	Math Computation	41	93	8.7
Sentence Comprehension	42	89	10.4	Reading Composite	179	88	--
Spelling	38	90	9.6				



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**Delis-Kaplan Executive Functioning System (D-KEFS) - Standard Form**

Subtest/Index	Raw	Scaled	Subtest/Index	Raw	Scaled
<b>D-KEFS-Verbal Fluency</b>			<b>D-KEFS Color-Word Interference Test</b>		
D-KEFS-VF - letter f	12		1. Uncorrected errors	0	
D-KEFS-VF - letter a	12		1. Corrected errors	0	
D-KEFS-VF - letter s	19		DKEFS CWIT- color naming (sec)	22	13
D-KEFS-VF - letter-mean	14.3		2. Uncorrected errors	2	
D-KEFS-VF - letter-total	43	12	2. Corrected errors	0	
D-KEFS-VF - Category	42	1	DKEFS CWIT- word reading (sec)	21	11
D-KEFS-VF - Switching responses	14	11	3. Uncorrected errors	1	
D-KEFS-VF - Switching accuracy	13	11	3. Corrected errors	1	
D-KEFS-VF - letter v category	11	11	DKEFS CWIT- inhibition (sec)	51	10
D-KEFS-VF - switching v category	10	19	4. Uncorrected errors	1	
<b>D-KEFS-Twenty Questions Test</b>			4. Corrected errors	0	
D-KEFS-20Q, abstraction	24	9	DKEFS CWIT- inhibition/switch (sec)	49	12
D-KEFS-20Q, total questions	23	12	DKEFS CWIT- inhibition all errors	2	9
D-KEFS-20Q, achievement	18	14	DKEFS CWIT- inhibition/switch all errors	1	11
<b>D-KEFS-Word Context Test</b>			Combined name + read	24	12
D-KEFS-Word Context Total	13	5	DKEFS CWIT- inhibition v color naming	-3	7
			DKEFS CWIT- inhibition/switch v comb.	0	10
			DKEFS CWIT- inhibition/switch v inhibit	2	12

**Behavior Rating Inventory of Executive Function - Adult Version**

Scale/Index	Raw	Scaled
<b>Teacher Form</b>		
Respondent:	Patient	
Brief-A- Inhibit	14	57
Brief-A- Shift	13	69
Brief-A- Emotional Control	23	67
<b>Brief-A- Self-Monitor</b>	13	67
Brief-A-BRI	63	68
Brief-A- Initiate	19	73
Brief-A- Working Memory	20	79
Brief-A- Plan/Organize	21	68
Brief-A- Task Monitor	12	63
<b>Brief-A- MI</b>	92	69
<b>Brief-P- GEC</b>	155	73

**Symptom Checklist - 90 - Revised**

Scale	raw	T	Scale	raw	T	Scale	raw	T	Scale	raw	T
SOM	1.25	65	DEP	1.31	65	PHOB	0.71	65	GSI	1.16	67
O-C	1.80	70	ANX	1.00	65	PAR	1.17	66	PSDI	1.70	59
I-S	1.33	68	HOS	0.33	54	PSY	0.90	69	PST	61	69

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**Personality Assessment Inventory**

Scale	raw	T	Scale	raw	T	Scale	raw	T	Scale	raw	T
ICN	7	55	ARD	25	56	ANT	11	48	NON	4	48
INF	0	40	DEP	33	70	ALC	6	52	RXR	17	57
NIM	4	59	MAN	9	35	DRG	1	44	DOM	13	36
PIM	11	41	PAR	23	55	AGG	5	38	WRM	24	51
SOM	30	69	SCZ	19	56	SUI	6	56			
ANX	31	64	BOR	28	60	STR	11	62			

**Beck Inventories**

Inventory	Raw	Range
Beck Depression Inventory-II	33	severe
Beck Anxiety Inventory	5	minimal

**Posttraumatic Stress Diagnostic Scale**

Area	Rating	Area	Rating
excessive omits?	no	Duration	chronic
Exposure	met	Delayed Onset	no
Reexperiencing	met	Func Impairment	severe
Avoidance	met	Num. of Symptom	13
Arousal	met	Symptom Severity	21
Duration/Onset	met	Sympt. Sev Rating	mod to sev
Distress/Func	met	Traumatic Event	serious accident
PTSD Criteria	met		

**Measurements**

<b>Height</b>	62 in.
<b>Weight</b>	120 lbs.

**Additional Forms Completed / Sent**

Form	Completed / Sent	Completed by:
Neurobehavioral History	Completed	Self
Neurobehavioral Signs and Symptoms	Completed	Self